Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 50. December, 1948. No. 600.

# THE FLORA OF PENIKESE, SEVENTY-FOUR YEARS AFTER

## III. PENIKESE ISLAND FUNGI[1]

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The island of Penikese is dominated largely by an open, wind-swept, and arid grassland. To obtain a representative list of the fungous flora, several areas on the island were selected for intensive survey. These were chosen to include the habitats most nearly optimum for fungal growth, and the widest selection of possible hosts and other substrata. The results of such a localized study are likely to be more profitable than a cursory examination of the whole island necessarily limited by the time available.

A large proportion of the collections were obtained from the area encompassing Typha Pond, a shallow freshwater pond. Several Pyrenomycetes and resupinate Thelephoraceae were found on the rotted wood of decorticated willow stumps. These stumps were the only trace of willows reported around the pond by Shaw in the previous survey. The branches and dead twigs of the maple trees growing on the slopes behind the caretaker's cottage, the undersurface of fallen logs in moist areas, and the flora growing in the vicinity of the beach and pond were among the best substrates. Few fungi were collected on the herbaceous

[1] The third paper reporting results of the biological survey of Penikese Island in commemoration of the 75th anniversary of the founding of Louis Agassiz' Natural History school there in 1872.

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hosts growing in very dry soil. The fungi reported from soil and on dung, and the majority of the myxothallophytes listed were collected and subsequently determined by Dr. J. T. Bonner.

The fungi collected have been deposited in the Mycological Herbarium of the University of Toronto. Most of these collections are meager; few fungi are represented from more than one locality on the island. These factors indicated the season not to be at an optimum for fungal growth.

Thirty-five genera of fungi and five genera of other simple, non-pigmented thallophytes are reported for this survey. Thirty genera of fungi and all of the myxothallophytes are newly reported for Penikese. The apparent discrepancy between the present list and that compiled for the previous survey is not surprising. Both lists are admittedly incomplete, but offer some indication of the fungous vegetation to be found on the island.

To all of those who have been of assistance in the collection and determination of these fungi, particularly Dr. John T. Bonner, Mr. Zelman Z. Dworkin, Dr. Roy F. Cain, and Mr. Wm. Irwin Illman, are extended sincere thanks in acknowledgment and appreciation of their aid.

## MYXOBACTERIALES

MYXOCOCCUS sp. On (?) Muskrat dung.

## ACRASIALES

DICTYOSTELIUM MUCOROIDES Bref. From soil and mud, and at edge of Typha-Pond in cattails.

## LABYRINTHULALES

LABYRINTHULA MACROCYSTIS Cienk. On *Zostera marina* L., widespread, causal organism of epiphytotic in eel-grass.

## MYXOGASTRALES

ARCYRIA NUTANS (Bull.) Grev. On log by side of house.

DICTYDIUM CANCELLATUM (Batsch) Macbr. On log by edge of Typha Pond.

# FUNGI

## PHYCOMYCETES

ALBUGO CANDIDA (Pers. ex Lév.) O. Kuntze. On *Sisymbrium officinale* (L.) Scop. growing in the damp bottom of reservoir no. 2.

MUCOR sp. From soil, widespread.

PILOBOLUS sp. On (?) Muskrat dung.
RHIZOPUS sp. From soil, widespread.

## ASCOMYCETES

AMPHISPHAERIA AQUATICA E. and E. On the inner rotted heartwood of *Salix* stump by Typha Pond.

HYSTEROGRAPHIUM MORI (Schw.) Rehm. On *Salix* stump by Typha Pond,

HYSTEROGRAPHIUM sp. On (?) *Catalpa* twigs. This specimen is similar to the one listed above, but has larger spores (23 x 10 μ) with lighter colored walls.

MYCOSPHAERELLA sp. On the overwintered leaves of *Panicum virgatum* L. An undetermined species of *Hendersonia* was present on the leaves of the same plant.

NITSCHKIA FUCKELII Nits. On dead twigs of *Acer*.

ORBILIA CURVATISPORA Bourd. On frondose wood by shack and at Typha Pond.

ORBILIA sp. Too young for specific determination.

ROSELLINIA SUBICULATA (Schw.) Sacc. On *Salix* stump by Typha Pond.

## BASIDIOMYCETES

CONIPHORA OLIVASCENS (B. & C.) Mass. On undersurface of fallen log.

CORTICIUM CONFLUENS Fr. On stump by Typha Pond.

ODONTIA SPATHULATA (Fr.) Litsch. On frondose log by shack.

PELLICULARIA PRUINATA (Bres.) Rogers ex Linder. On wood.

PENIOPHORA CINEREA (Pers. ex Fr.) Cooke complex. On *Acer* twigs.

PENIOPHORA SAMBUCI (Pers.) Burt. On *Salix* stump by Typha Pond.

PENIOPHORA TENUIS (Pat.) Massee. From fence pole on hillside.

POLYPORUS sp. On frondose wood, too old for determination.

PORIA sp. (brown) or resupinate FOMES sp. On undersurface of log by shack.

PORIA sp. (white). On frondose wood next to shack.

PSALLIOTA ARVENSIS (?). In grass.

PUCCINIA CORONATA Corda or *P. rubigo-vera agropyri* (Eriks.) Arth. II on *Holcus lanatus*.

STEREUM FASCIATUM Schw. On frondose log by shed.

## FUNGI IMPERFECTI

ASPERGILLUS CANDIDUS Link. On animal cartilage, probably porpoise.

ASPERGILLUS sp. In soil, widespread.

CEPHALOSPORIUM sp. On log next shack.

FUSARIUM sp. In soil, widespread.

HENDERSONIA sp. On leaves of *Panicum virgatum* L. A species of *Mycosphaerella* was also on this plant.

HYPOXYLON RUBIGINOSUM Fr., imperfect stage. On log of frondose wood next to shack.

OIDIUM CANDICANS (Sacc.) Linder. Imperfect stage of *Pellicularia pruinata* (Bres.) Rogers ex Linder. On the log next shack.

PENICILLIUM sp. In soil, widespread.

STEGANOSPORIUM PIRIFORME (Hoffm.) Corda. On *Acer*.

TRICHODERMA LIGNORUM (Tode) Harz. On decorticated *Salix* stump by Typha-Pond.

TUBERCULARIA sp. The imperfect stage of *Nectria cinnabarina* (Tode ex Fr.) Fr. On dead twigs of *Acer*.

TUBERCULARIA. Periola complex. On *Plantago lanceolata*.

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## IV. FLORA OF PENIKESE ISLAND

EDWIN T. MOUL

The third survey of the land flora of Penikese Island was made during the summer of 1947, commemorating the 74th Anniversary of the founding of the Anderson School of Natural History by Louis Agassiz. This survey was made by a group from the Botany Department of the Marine Biological Laboratory. Those participating were Gladys Bulmer, Dorothy Stewart, Hazel L. Moul, David Erskine, E. M. Hulburt and Edwin T. Moul. It was our task to cover the Lichens, Bryophytes, Pteridophytes and Spermatophytes. A total of three trips was made to the island, the first on July 6, another on July 31 and a final trip on August 3. This enabled us to secure the forms that mature early in the summer as well as collect the late summer plants.

Specimens were collected of all species observed and are to be distributed to the following Herbaria. The first set of plants will be deposited in the Woods Hole Herbarium, the second set sent to the University of California at Berkeley, the third set to the University of Pennsylvania and further duplicates to Pennsylvania State College. A complete set of grasses has been placed at Iowa State College and a set of the lichens deposited in the herbarium of the University of Wisconsin. All determinations not otherwise credited were made by David Erskine and